DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-017220
Date Inspected: 30-Sep-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 1000
OSM Departure Time: 1830
Location: Job Site

CWI Name: William Sherwood and John Paglieri

CWI Present:	☑ Yes	☐ No					
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Orthotropic Box Girder

Summary of Items Observed:

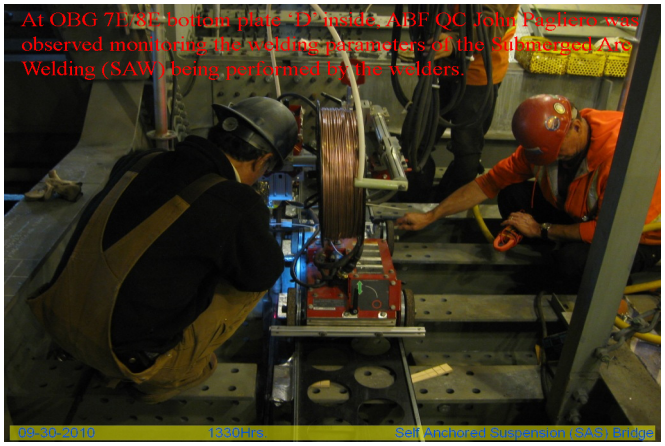
Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 7E/8E top deck plate A1 to A5 outside , QA randomly observed ABF/JV qualified welders Xiao Jian Wan and Hua Qiang Huang seal welding top deck plates ‘A1 to A5’ to the backing bar. The welders were utilizing a dual shield Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16” diameter wire electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3040A-1. The joint had a single V-groove butt joint design with the bottom plate being seal welded with backing bar. The plate with the backing bar was preheated to greater than 150 degrees Fahrenheit using Miller Proheat 35 Induction Heating System heater blankets located at the top of the plate prior welding and moving to the side of the plate during welding. During the shift, ABF QC William Sherwood was noted monitoring both welders with welder Xiao Jian Wan and Hua Qiang Huang having noted welding parameters of 245 amperes/23.5 volts and 250 amperes/23.2 volts respectively which deemed in compliance to the contract requirements. The welders have not completed the seal welding of the joint during the shift and should continue tomorrow.

At OBG 7E/8E bottom plate ‘D’ inside, QA randomly observed ABF certified welder James Zhen ID #6001 and Songtao, Huang ID #3794 perform 1G (flat position) Submerged Arc Welding (SAW) welding root pass then fill pass on the CJP splice butt joint. The welders were utilizing F7A6-EM12K-H8, 3.2mm electrode with corresponding Esab OK Flux 10.62 flux and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-4042B-1. The joint being welded had a single V-groove butt joint with backing bar. The

plates were preheated to more than 150 degree Fahrenheit using Miller Proheat 35 Induction Heating System heater blankets located at the opposite side of the plate prior/during welding. Welding parameters were monitored by ABF/QC William Sherwood. QA noted the welding parameters, the workmanship and appearance of the completed fill deemed satisfactory. At the end of the shift, SAW fill pass welding was still continuing and should remain tomorrow.

At OBG 6W/7W edge plate 'B' inside, QA randomly observed ABF/JV qualified welder Jin Pei Wang ID #7299 back welding cover pass on the Complete Joint Penetration (CJP) splice butt joint. The welder was observed manually welding in the 3G (vertical) position utilizing a Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3110-3. The joint being welded has a single V-groove butt joint with copper backing bar that has been removed and back gouged. The groove of the ground and gouged area of the copper backing bar was also tested and passed using Magnetic Particle Testing (MT). During welding, ABF Quality Control (QC) John Pagliero was noted monitoring the welding parameters of the welder. During the shift, cover pass SMAW welding on the edge plate was completed and has moved to other edge plate 'F' of the same OBG. The welder was observed welding in the same position using the same process as mentioned above. At the end of the shift, cover pass welding on this joint was still continuing and should continue tomorrow.



WELDING INSPECTION REPORT

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Summary of Conversations:

No significant conversation ocurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo,Joselito	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer